## (19) World Intellectual Property Organization International Bureau



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(71) Applicant: BOSTON SCIENTIFIC LIMITED [IE/BB]; The Corporate Centre, Bush Hill, Bay Street, St. Michael (BB).

(72) Inventors: GARNER, Joseph; 9281 Zinnia Lane North, Maple Grove, MN 55369 (US). YOUNG, Matthew, L.; 2556 Tyron Lane, Mound, MN 55364 (US). FORSBERG, Andrew; 17210 County Road 6, Apt 302, Plymouth, MN 55447 (US). ELLIS, Louis; 3004 Armour Terrace, St. Anthony, MN 55418 (US). HENDRICKSON, Gary; 25216 184th Street, Big Lake, MN 55309 (US).

(74) Agents: SEAGER, Glenn et al.; Crompton, Seager & Tufte LLC, 331 Second Avenue South, Suite 895, Minneapolis, MN 55401-2246 (US). (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

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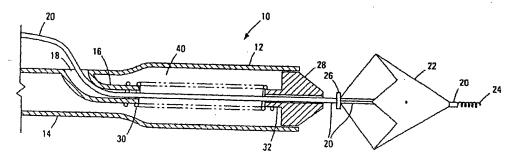
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTRAVASCULAR FILTER RETRIEVAL DEVICE HAVING AN ACTUATABLE DILATOR TIP



(57) Abstract: A filter retrieval device having an actuatable dilator tip for retrieval of an intravascular filter from a body lumen is disclosed. An outer shaft coupled to a distal sheath is advanced along a filter wire to desired point within the vasculature. An intravascular filter such as a distal protection filter can be advance along the filter wire to a point distal a lesion to collect debris dislodged during a medical procedure. Disposable in part within the distal sheath is an actuatable dilator tip adapted to retrieve the filter at least in part within the distal sheath. Actuation of the dilator tip may be accomplished by any number of means, including a resilient number such as a spring coil, or by a reduced inner diameter portion disposed on the distal sheath adapted to engage a plurality of surfaces disposed on the dilator tip.



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### INTERNATIONAL SEARCH REPORT

PCT/US 02/06323

A. CLASSII IPC 7	FICATION OF SUBJECT MATTER A61F2/01			
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Electronic d	ata base consulted during the International search (name of data ba	se and, where practical, search terms used	)	
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C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the rel	evant nassanes	Relevant to claim No.	
Category	Oranion of document, with indealing, where appropriate, or more	over proving to	Toolston to dealinto.	
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Furti	ther documents are listed in the continuation of box C.	χ Patent family members are fisted	in annex.	
	ategories of cited documents:	<u> </u>		
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consid	dered to be of particular relevance document but published on or after the International	cited to understand the principle or the invention		
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which	is cited to establish the publication date of another n or other special reason (as specified)	"Y" document of particular relevance; the cannot be considered to involve an in	dalmed invention	
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Date of the	actual completion of the international search	Date of mailing of the international se	arch report	
. 3	October 2002	10/10/2002		
Name and	mailing address of the ISA	Authorized officer		
	European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,		•	
	Fax: (+31-70) 340-3016	Neumann, E		

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### INTERNATIONAL SEARCH REPORT

ternational application No. PCT/US 02/06323

Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. χ	Claims Nos.: 22-29 because they relate to subject matter not required to be searched by this Authority, namely:
	Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2.	Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
з. 🗌	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This inte	rnational Searching Authority found multiple inventions in this international application, as follows:
1.	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.	As all searchable dalms could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the Invention first mentioned in the claims; it is covered by claims Nos.:
Remark (	The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

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nformation on patent family members

Internal Application No PCT/US 02/06323

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